

57



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10/003,339	10/31/2001	Varda Treibach-Heck	Call-Tell FX	5246

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EXAMINER

MURPHY, DILLON J

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,339

Applicant(s)

TREIBACH-HECK ET AL.

Examiner

Dillon J. Murphy

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claim 9 is objected to because of the following informalities: the phrase "the transmission channel is a standard telephone line at least one of the parameters is time" displays incorrect grammar and can be fixed by changing it to --the transmission channel is a standard telephone; and at least one of the parameters is time--.

Claim 12 is objected to because of the following informalities: the phrase "a facsimile machine forming means for converting the physical form into the electronic representation and for sending the electronic representation of the image of the physical form to the central server is generated using a conventional facsimile machine" should be corrected to read --a facsimile machine forming means for converting the physical form into the electronic representation and for sending the electronic representation of the image of the physical form to the central server, *in which the form* is generated using a conventional facsimile machine--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shepard (US 4,021,777).

Regarding claim 1, Shepard teaches a method for collecting reports of at least one parameter comprising the following steps:

Automatically receiving from any of a plurality of senders, via a transmission channel, an electronic representation of an image of a physical form (Shepard, col 3, In 36-38, form is scanned in from a plurality of users and converted to an electronic format), the form having a plurality of data fields, each corresponding to an indicator of at least a partial value of at least one of the parameters (Shepard, col 5, In 1-13, business form is a conventional time sheet comprising data fields with indicators and data corresponding to parameters);

Automatically identifying the location of the data fields in the received representation of the image of the form (Shepard, col 5, In 43-48, instructions automatically locate data fields in form);

Automatically extracting from the identified data fields the at least partial values of the corresponding parameters (Shepard, col 9, In 42-57, information is extracted and interpreted as data); and

Automatically storing the extracted values in a predetermined format in a memory for subsequent processing (Shepard, col 3, In 53-57, extracted values are stored in

Art Unit: 2624

rotating magnetic drum for processing. Also see col 8, ln 36-44, wherein entire process is automatic).

Regarding claim 6, which depends from claim 1, Shepard teaches a method further comprising: associating at least two different physical forms with different senders, and automatically determining the identity of each sender based on the received image of the physical form (Shepard, col 5, ln 16-18, form with ID number is associated with a specific customer. The method as taught by Shepard comprises processing multiple forms and from customers without a loss in operating efficiency, as seen in col 8, ln 44-53).

Regarding claim 11, Shepard further teaches a system for collecting reports of at least one parameter comprising:

A central server that includes: I/O means for automatically receiving from any of a plurality of senders, via a transmission channel, an electronic representation of an image of a physical form, the form having a plurality of data fields, each corresponding to an indicator of at least a partial value of at least one of the parameters (Shepard, figure 1, central station #24. Form with a plurality of data fields is taught in Shepard, figure 2, business form #100);-

Form processing means: for automatically identifying the location of the data fields in the received representation of the image of the form (Shepard, col 5, ln 43-48, instructions automatically locate data fields in form);

For automatically extracting from the identified data fields the at least partial values of the corresponding parameters (Shepard, col 9, ln 42-57, information is extracted and interpreted as data); and

Automatically storing the extracted values in a predetermined format in a memory for subsequent processing (Shepard, col 3, ln 53-57, extracted values are stored in rotating magnetic drum for processing. Also see col 8, ln 36-44, wherein entire process is automatic).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5, 9, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard (US 4,021,777) and Al-Hussein (US 5,809,167).

Regarding claim 2, which depends from claim 1, Shepard teaches automatically receiving, identifying, extracting, and storing information from a form as explained in the rejection of claim 1 above. Shepard does not disclose expressly a method of generating the electronic representation using a facsimile machine whereby the transmission channel is a standard telephone line. However, Al-Hussein teaches a method of receiving a form via a facsimile machine over a telephone line, converting the

Art Unit: 2624

document to an electronic format, and performing processing thereon (Al-Hussein, col 11, ln 12-18, form is scanned remotely and sent to PICS (personal imaging computer system) via a telephone line, wherein the PICS comprises a fax machine, col 5, ln 33-38).

Shepard and Al-Hussein are combinable because they are from a similar field of endeavor of receiving a document and extracting information from the document automatically. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of receiving of the document via fax machine and telephone line as taught by Al-Hussein with the method of Shepard comprising identifying, extracting, and storing information from a form. The motivation for doing so would have been to provide an improved apparatus, method, and technique for processing documents by optical character recognition means for a plurality of different forms (Shepard, col 2, ln 60-66), as well as offering the capability to a plurality of senders by integrating the method into a facsimile machine. Therefore, it would have been obvious to combine Al-Hussein with Shepard to obtain the invention as specified in claim 2.

Regarding claim 3, which depends from claim 2, the combination of Shepard and Al-Hussein further teaches a method further including the step of transferring the stored extracted values to an external recipient via a network, all processing of the physical form after transmission by the sender up to and including transfer to the external recipient via the network thereby taking place automatically (Shepard, col 3, ln 40-43, code signals are sent to a central station, while processing has already been

Art Unit: 2624

determined to be automatic. Also see Al-Hussein, col 10, ln 40-45, wherein method includes sending electronic image to a network disk to be part of a searchable database. Transferring as taught by Al-Hussein is also automatically controlled by system, col 9, ln 62-64).

Regarding claim 4, which depends from claim 1, the combination of Shepard and Al-Hussein further teaches a method in which each data field indicates a quantifiable or itemizable value of a corresponding one of the parameters, further including the additional step of storing the received electronic representation of the image of the physical form in the memory (Al-Hussein, col 7, ln 44-51, individual characters are extracted from text regions in the page and stored as a text file), whereby non-quantifiable and non-itemizable entries by the user onto the physical form are made available for subsequent review (Al-Hussein, col 10, 46-55, entire image, including non-quantifiable and non-itemizable entries, is stored in memory and associated with text file of extracted information. Upon searching the extracted text, it is possible to bring up non-quantifiable information for subsequent review).

Regarding claim 5, which depends from claim 1, the combination of Shepard and Al-Hussein further teaches a method further including the step of storing recipient-entered annotations in the memory along with the stored extracted values of the respective received form (Al-Hussein, col 10, ln 40-55, entire image, including annotations, is stored in memory along with associated text file of extracted information. Upon searching the extracted text, it is possible to bring up non-quantifiable information for subsequent review).

Regarding claim 9, which depends from claim 1, the combination of Shepard and Al-Hussein further teaches a method in which the electronic representation of the image of the physical form is generated using a conventional facsimile machine and the transmission channel is a standard telephone line (Al-Hussein, col 11, ln 12-16, form is scanned remotely and sent to fax machine via a telephone line);

At least one of the parameters is time, and the physical form is a time sheet (Shepard, col 5, ln 1-13, business form is a conventional time sheet comprising at least one parameter that is time).

Regarding claim 12, which depends from claim 11, the combination of Shepard and Al-Hussein further teaches a system further comprising: a facsimile machine forming means for converting the physical form into the electronic representation and for sending the electronic representation of the image of the physical form to the central server, in which the form is generated using a conventional facsimile machine (Al-Hussein, col 11, ln 12-16, form is scanned remotely and sent to fax machine via a telephone line. Scanner of Shepard sends electronic form to central server in col 3, ln 40-43); in which the transmission channel is a standard telephone line (Al-Hussein, col 11, ln 12-16, fax is connected to telephone line).

Regarding claim 13, which depends from claim 11, the combination of Shepard and Al-Hussein further teaches a system in which the form processing means includes annotation means for receiving and storing recipient-entered annotations in the memory along with the stored extracted values of the respective received form (Al-Hussein, col 10, ln 40-55, entire image, including annotations, is stored in memory along with

associated text file of extracted information. Upon searching the extracted text, it is possible to bring up non-quantifiable information for subsequent review).

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard (US 4,021,777) and Earl et al. (US 5,231,663), hereafter referred to as Shepard and Earl.

Regarding claim 7, which depends from claim 6, Shepard teaches a method of automatically receiving, identifying, extracting, and storing information from a form, as well as associating a form with different senders and identifying each sender, as explained in the rejections of claims 1 and 6. Shepard does not disclose expressly the method of storing an electronic representation of a template of each included physical form, nor does Shepard disclose automatically identifying received forms by performing a best-fit comparison of each received electronic representation of the image of one of the physical forms with the stored electronic representations of the templates. Earl discloses a method of storing an electronic template of each form (Earl, col 3, ln 39-40, blank form in input to the system to allow the system to "learn" the format for later recognition). Earl also discloses a method of identifying the received form by a best-fit comparison with the stored form (Earl, col 12, ln 16-27, image is converted into vector representation, and received image representation is compared with a previously learned form to identify the form and corresponding marks).

Shepard and Earl are combinable because they are from a similar field of endeavor of receiving an electronic representation of a form and extracting data therefrom. At the time of the invention, it would have been obvious to a person of

Art Unit: 2624

ordinary skill in the art to combine the method of Earl comprising storing a form for later use for providing a reference for identifying a received form through a best-fit comparison with the method of Shepard comprising automatically receiving, identifying, extracting, and storing information from a form, as well as associating a form with different senders and identifying each sender. The motivation for doing so would have been to provide an improved apparatus, method, and technique for processing documents by optical character recognition means for a plurality of different forms (Shepard, col 2, ln 60-66), as well as to provide improved accuracy and additional capability over prior art systems without compromising processing speed (Earl, col 1, ln 52-54). Therefore, it would have been obvious to combine Earl with Shepard to obtain the invention as specified in claim 7.

Regarding claim 8, which depends from claim 1, the combination of Shepard and Earl further teaches a method in which the step of automatically identifying the location of the data fields comprises the following sub-steps:

Storing an electronic representation of a template of each of a plurality of physical forms (Earl, col 3, ln 39-40, blank form is input to the system to allow the system to "learn" the format for later recognition);

Automatically identifying each received form by performing a best-fit comparison of each received electronic representation of the image of the corresponding physical form with the stored electronic representations of the templates; automatically registering the received electronic representation of the received physical form image with the best-fit electronic template representation (Earl, col 12, ln 16-27, image is

Art Unit: 2624

converted into vector representation, and received image representation is compared with a previously learned form to identify the form and corresponding marks); and

Matching the data fields in the received electronic representation of the received physical form image with corresponding data fields in the best-fit electronic template representation (Earl, col 3, In 43-46, data fields in received are scanned and matched with data fields in electronic template for scoring purposes of form).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard (US 4,021,777), Al-Hussein (US 5,809,167), and Earl et al. (US 5,231,663), hereafter referred to as Shepard, Al-Hussein, and Earl.

Regarding claim 10, Shepard teaches a method for collecting reports of at least one parameter comprising the following steps:

Automatically receiving from any of a plurality of senders, via a transmission channel, an electronic representation of an image of a physical form (Shepard, col 3, In 36-38, form is scanned in from a plurality of users and converted to and electronic format), the form having a plurality of data fields, each corresponding to an indicator of at least a partial value of at least one of the parameters (Shepard, col 5, In 1-13, business form is a conventional time sheet comprising data fields with indicators and data corresponding to parameters);

Automatically identifying the location of the data fields in the received representation of the image of the form (Shepard, col 5, In 43-48, instructions automatically locate data fields in form);

Automatically extracting from the identified data fields the at least partial values of the corresponding parameters (Shepard, col 9, ln 42-57, information is extracted and interpreted as data); and

Automatically storing the extracted values in a predetermined format in a memory for subsequent processing (Shepard, col 3, ln 53-57, extracted values are stored in rotating magnetic drum for processing); and

Transferring the stored extracted values to an external recipient via a network, all processing of the physical form after transmission by the sender up to and including transfer to the external recipient via the network thereby taking place automatically (Shepard, col 8, ln 36-44, wherein entire process is automatic);

Shepard does not disclose expressly generating the electronic representation using a fax machine over a telephone line, does not disclose expressly storing quantitative and non-quantitative entries together, storing an electronic template of each form, and identifying and matching data fields based off of a best-fit comparison of a stored form and the received form. However, Al-Hussein teaches a method in which:

The electronic representation of the image of the physical form is generated using a conventional facsimile machine, whereby the transmission channel is a standard telephone line (Al-Hussein, col 11, ln 12-16, form is scanned remotely and sent to fax machine via a telephone line); and

Each data field indicates a quantifiable or itemizable value of a corresponding one of the parameters, further including the additional step of storing the received electronic representation of the image of the physical form in the memory (Al-Hussein,

Art Unit: 2624

col 7, ln 44-51, individual characters are extracted from text regions in the page and stored as a text file), whereby non-quantifiable and non-itemizable entries by the user onto the physical form are made available for subsequent review (Al-Hussein, col 10, 46-55, entire image, including non-quantifiable and non-itemizable entries, is stored in memory and associated with text file of extracted information. Upon searching the extracted text, it is possible to bring up non-quantifiable information for subsequent review).

Shepard and Al-Hussein are combinable because they are from a similar field of endeavor of receiving a document and extracting information from the document automatically. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of receiving of the document via fax machine and telephone line as taught, the method of storing the electronic representation in memory, and the method of making non-quantifiable entries available for subsequent review by Al-Hussein with the method of Shepard comprising receiving, identifying, extracting, storing, and transferring information from a form. The motivation for doing so would have been to provide an improved apparatus, method, and technique for processing documents by optical character recognition means for a plurality of different forms (Shepard, col 2, ln 60-66), as well as offering the capability to a plurality of senders by integrating the method into a facsimile machine.

The combination of Shepard and Al-Hussein teaches a method of receiving, identify, extracting, storing, transferring a form via a fax machine over a telephone line wherein each data field indicates quantifiable or non-quantifiable entries, whereby non-

Art Unit: 2624

quantifiable entries are made available for subsequent review. The combination of Shepard and Al-Hussein does not teach a method of storing a template for a plurality of forms, identifying each form via a best-fit representation, registering the received form, and matching the data fields of the received form with the data fields of the template. However, Earl teaches a method of automatically identifying the location of the data fields comprising the following sub-steps:

Storing an electronic representation of a template of each of a plurality of physical forms (Earl, col 3, ln 39-40, blank form in input to the system to allow the system to "learn" the format for later recognition);

Automatically identifying each received form by performing a best-fit comparison of each received electronic representation of the image of the corresponding physical form with the stored electronic representations of the templates; automatically registering the received electronic representation of the received physical form image with the best-fit electronic template representation (Earl, col 12, ln 16-27, image is converted into vector representation, and received image representation is compared with a previously learned form to identify the form and corresponding marks); and

Matching the data fields in the received electronic representation of the received physical form image with corresponding data fields in the best-fit electronic template representation (Earl, col 3, ln 43-46, data fields in received are scanned and matched with data fields in electronic template for scoring purposes of form).

Shepard, Al-Hussein, and Earl are combinable because they are from a similar field of endeavor of scanning forms and subsequent data processing. At the time of the

Art Unit: 2624

invention, it would have been obvious to a person of ordinary skill in the art to combine the method of storing an electronic template, identifying the received form via a best-fit comparison process, registering the form, and matching data fields with the combination of methods of the combination of Shepard and Al-Hussein. The motivation for doing so would have been to provide an improved apparatus, method, and technique for processing documents by optical character recognition means for a plurality of different forms (Shepard, col 2, ln 60-66), to offer the capability to a plurality of senders by integrating the method into a facsimile machine, as well as to provide improved accuracy and additional capability over prior art systems without compromising processing speed (Earl, col 1, ln 52-54). Therefore, it would have been obvious to combine Earl with the combination of Shepard and Al-Hussein to obtain the invention as specified in claim 10.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Reid-Green et al., US 5,001,769, filed December 20, 1988, is cited for teaching a method and system for scanning in a form, associating said form with a template, and automatically extracting information in a computer. The Tsai reference, US 5,838,458, filed December 14, 1995, is cited for teaching a system and method of receiving a document by facsimile machine connected to a telephone line, extracting quantifiable and non-quantifiable information from said document, and storing both entries for subsequent review.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dillon J. Murphy whose telephone number is (571) 272-5945. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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